

Avicenna's Canon of Medicine: A Look at Health, Public Health, and Environmental Sanitation

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Abstract

Avicenna, a renowned Persian Muslim scientist has written numerous scientific papers and valuable medical books that are respected worldwide. For centuries his masterpiece, the "Canon of Medicine", has been used as a major medical reference. The Canon, as a prime encyclopedia on medicine is comprised of five books. In the introduction to the Canon, Avicenna has described the purpose of medicine as the preservation of health if it is already attained and its restoration when it is lost. He defines health as a trait or state, which results in the normal functioning of the human body and presumes that health is a steady state, whilst disease is more of a variable concept. Thus whenever we depart from a healthy state, we approach disease. A comparison of current views regarding definitions of health, disease and their components as defined by Avicenna could open new horizons for ancient, traditional medicine. The Canon contains numerous implications concerning the infrastructures of public health-related issues. For example the specifications of healthy water and air are well described in the "Canon of Medicine". To enable a better understanding of Avicenna's viewpoints about public health, we have briefly reviewed his perspective on the topics of health, disease, and environmental sanitation concerning water and air.

Keywords: History of medicine, Iran, public health

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Introduction

Ibn Sīnā, whose full name is Abu 'Alī al-Husayn ibn 'Abd Al-lah ibn Sina, is also known in the West as Avicenna. Avicenna was a well-known Persian and a Muslim scientist¹ who was considered to be the father of early modern medicine. Avicenna created an extensive corpus of work during Islam's Golden Age. During his time, he was regarded as a prominent physician and philosopher who influenced the world through his valuable works.^{2,3} Dante, in his epic poem "Divine Comedy", equated him with Hippocrates and Galen.⁴⁻⁶

Ibn Sina was born in 980 A.D. (Safar 370 A.H.) in a village in Afshaneh near Bukhara (in present Uzbekistan). He was born into a Persian family.^{7,8} At a young age he enthusiastically read books related to medicine, performed empirical works to treat patients, and gradually became an outstanding physician.⁹ About 1012 CE; c. 402 AH, Ibn Sina began to write his masterpiece, the "Canon of Medicine" which he finished while living in Hamadan (present day Iran).¹⁰

After considerable influence in the medical world in addition to the compilation of masterful books and papers, and doing prominent studies, Ibn Sina died of colic in 428 A.H. (1037 A.D.). He was buried in Hamadan, Iran^{9,10} where his tomb is currently a famous tourist attraction.

The "Canon of Medicine" or "Qanoun fi Tib" is considered a medical masterpiece. The Canon, which is the largest work by Ibn

Sina, was translated into Latin in the 12th century and used as a major reference in medical education from the 12th until the 17th centuries.^{6,7} The Canon includes five books and ten parts, where each book relates to one medical issue.⁶

This review discusses the concepts of health and public health in the Canon as well as Avicenna's views about public health.

Health and public health

Before embarking on a discussion of Avicenna's views it is necessary to have a clear understanding of the terms "health" and "public health". Although in existence for approximately 60 years, the World Health Organization's (WHO) definition of health is still relevant and defined as: "a state of complete physical, mental and social well-being and not merely the absence of disease".¹¹ However, this definition is limited in that it is impossibly idealistic and unobtainable for most people.¹²

In 1920 CEA Winslow, a Professor of Public Health at Yale University, defined public health as follows: "Public health is the science and art of 1) preventing disease, 2) prolonging life, and 3) promoting health and efficiency through organized community effort for a) the sanitation of the environment, b) the control of communicable infections, c) the education of the individual in personal hygiene, d) the organization of medical and nursing services for early diagnosis and preventive treatment of disease, and e) the development of social machinery to ensure that everyone is provided with a standard of living adequate for the maintenance of health. Indeed, these should be so organized as to enable every citizen to enjoy his birthright of health and longevity".¹³

In the opening section to the Canon, Avicenna has described the purpose of medicine (Tib) as the preservation of health if it is already attained and its restoration when it is lost.¹⁴ Moreover, he has argued against the assertion that there were there are three

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